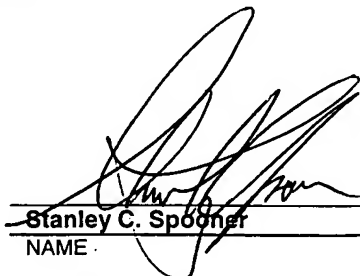


FORM PTO-1390 MODIFIED	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	Mail Stop PCT 04 JAN 2005 550-609
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371		U.S. APPLICATION NO. (If known, see 37 C.F.R. 1.5) <div style="font-size: 24pt; font-weight: bold; text-align: center;">10/520160</div>
INTERNATIONAL APPLICATION NO. PCT/GB2003/002821	INTERNATIONAL FILING DATE 1 July 2003	PRIORITY DATE CLAIMED 4 July 2002
TITLE OF INVENTION <div style="text-align: center; font-weight: bold;">FREQUENCY CONTENT SEPARATION USING COMPLEX FREQUENCY SHIFTING CONVERTERS</div>		
APPLICANT(S) FOR DO/EO/US <div style="text-align: center; font-weight: bold;">LILLINGTON et al</div>		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
<ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> This is a FIRST submission of items concerning a submission under 35 U.S.C. 371. 2. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a submission under 35 U.S.C. 371. 3. <input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below. 4. <input checked="" type="checkbox"/> The U.S. has been elected (Article 31). 5. A copy of the International Application as filed (35 U.S.C. 371(c)(2)). <ol style="list-style-type: none"> a. <input checked="" type="checkbox"/> is attached hereto (20 pages specification, claims & abstract (11 claims), 25 sheets drawings). b. <input checked="" type="checkbox"/> has been communicated by the International Bureau. c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US). 6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(3)) <ol style="list-style-type: none"> a. <input type="checkbox"/> is attached hereto (pages specification, claims & abstract (claims), sheets drawings, page Certificate of Translation). b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4). 7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) <ol style="list-style-type: none"> a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau). b. <input type="checkbox"/> have been communicated by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. d. <input type="checkbox"/> have not been made and will not be made. 8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). 9. <ol style="list-style-type: none"> a. <input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). b. <input type="checkbox"/> Declaration was submitted to the International Bureau during International Phase (see copies of Declaration (page Form PCT/RO/101 and Form PCT/IB/371 and first page of printed publication acknowledging receipt thereof attached). 10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). <p style="margin-left: 20px;">Items 11 To 20 below concern document(s) or information included:</p> <ol style="list-style-type: none"> 11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 C.F.R. 1.97 and 1.98. 12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 C.F.R. 3.28 and 3.31 is included. 13. <ol style="list-style-type: none"> a. <input checked="" type="checkbox"/> A FIRST preliminary amendment. b. <input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment. 14. <input type="checkbox"/> An Application Data Sheet under 37 C.F.R. § 1.76. 15. <input type="checkbox"/> A substitute specification. 16. <input type="checkbox"/> A change of power of attorney and/or address letter. 17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821-1.825. 18. <input type="checkbox"/> A second copy of the published international application under 35 U.S.C. 154(d)(4). 19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4). 20. <input checked="" type="checkbox"/> Other items or information. PCT Request Form, International Preliminary Examination Report w/amended sheets 		

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DT05 Rec'd PCT/PTO 04 JAN 2005

U.S. APPLICATION NO. (If known, see 37 C.F.R. 1.5) unknown		INTERNATIONAL APPLICATION NO. PCT/GB2003/002821		ATTORNEY'S DOCKET NUMBER 550-609	
21. <input checked="" type="checkbox"/> The following fees are submitted:					
BASIC NATIONAL FEE (37 C.F.R. 1.492(a)(1)-(5)):					
<input checked="" type="checkbox"/> a) Basic national fee				\$300.00 (1631)/\$150.00 (2631)	\$ 300.00
<input checked="" type="checkbox"/> b) Examination Fee				\$200.00 (1633)/\$100.00 (2633)	\$ 200.00
<input checked="" type="checkbox"/> c) Search Fee				\$500.00 (1632)/\$250.00 (2632)	\$ 500.00
TOTAL OF ABOVE CALCULATIONS				\$1000.00/\$500.00	\$ 1000.00
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole number)		RATE	
45 -100	0 /50 =	0.00		\$250.00 (1681)	\$
				\$125.00 (2681)	
Surcharge of \$130.00 (1617)/\$65.00 (2617) for furnishing the oath or declaration later than <input checked="" type="checkbox"/> 30 months from the earliest claimed priority date (37 C.F.R. 1.492(e)).					\$ 130.00
CLAIMS	NUMBER FILED	# EXTRA	RATE		
Total Claims	10 minus 20 =	0 X	\$50.00 (1615)/	\$25.00 (2615)	\$
Independent Claims	1 minus 3 =	0 X	\$200.00 (1614)	\$100.00 (2614)	\$
MULTIPLE DEPENDENT CLAIMS(S) (if applicable)			\$360.00 (1616)/\$180.00 (2616)		\$ 0.00
Petition is hereby made to extend the current due date so as to cover the filing date of this paper and attachment(s): One Month Extension \$120.00 (1251)/\$60.00 (2251); Two Month Extensions \$450.00 (1252)/\$225.00 (2252); Three Month Extensions \$1020.00 (1253)/\$510.00 (2253); Four Month Extensions \$1590.00 (1254)/\$795.00 (2254)					\$ 0.00
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27.					
Processing fee of \$130.00 (1618), for furnishing the English Translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 C.F.R. 1.492(f)).					0.00
TOTAL NATIONAL FEE =					\$ 1,130.00
Fee for recording the enclosed assignment (37 C.F.R. 1.21(h). The assignment must be accompanied by an appropriate cover sheet (37 C.F.R. 3.28, 3.31). \$40.00 (8021) per property					\$ 0.00
Fee for Petition to Revive Unintentionally Abandoned Application; \$1500.00 (1453) / \$750.00 (2453)					\$ 0.00
TOTAL FEES ENCLOSED =					\$ 1,130.00
					Amount to be: refunded \$
					Charged \$
a. <input type="checkbox"/> A check in the amount of \$1130.00 to cover the above fees is enclosed. b. <input type="checkbox"/> Please charge my Deposit Account No. 14-1140 in the amount of \$_____ to cover the above fees. A duplicate copy of this form is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 14-1140. A duplicate copy of this form is enclosed. d. <input checked="" type="checkbox"/> CREDIT CARD PAYMENT FORM ATTACHED. e. <input checked="" type="checkbox"/> The entire content of International Application No. PCT/GB2003/002821 and any U.S. and foreign application(s) corresponding thereto, and _____, referred to in this application is/are hereby incorporated by reference in this application. NOTE: Where an appropriate time limit under 37 C.F.R. 1.494 or 1.495 has not been met, a petition to revive (37 C.F.R. 1.137(a) or (b) must be filed and granted to restore the application to pending status. CORRESPONDENCE ADDRESS Direct all correspondence to: <input checked="" type="checkbox"/> Customer Number: 23117 Type Customer Number here Telephone: (703) 816-4000 SCS:alb					
 Stanley C. Spooner NAME					
27,393					January 4, 2005
REGISTRATION NUMBER					Date